

### **REMARKS**

Claims 1-8, 11, 13-19, 22-30, 33-36, 38-39, 53-55, 57-61, 133-136, 173-176 and 183-186 have been examined in the present Office Action and stand rejected. Claims 41-52, 62-132, 137-172 and 177 are canceled and claims 9-10, 12, 20-21, 31-32, 37, 40, 56 and 178-182 are withdrawn. All claims have been canceled and rewritten as new claims 187-236.

The Office has characterized claims 9-10 and 20-21 as drawn to a species of polypeptide "other than LKKTET." Applicant would like to point out that all of the thymosin beta (TB) 4 isoforms (and TB4 itself) recited in new claims 187 and 190 contain the sequence LKKTET. TB15 contains LKKTNT. See page 209 of Huff et al., of record in this case. Applicants elected Group I, defined as methods using a compound comprising the amino acid sequence LKKTET or conservative variants thereof in the Office Action dated September 26, 2003. TB9, for example comprises the amino acid sequence LKKTET and is properly within Group I.

For the avoidance of confusion and the restriction requirement having been made final, Applicant is amending the claims to cancel subject matter directed to a non-elected invention, i.e. to subject matter outside of Group I. Therefore, subject matter relating to methods using a compound that does not comprise the amino acid sequence LKKTET or a conservative variant thereof are canceled in view of the Restriction Requirement. The claims have been rewritten as new claims 187-236 at this time. The table below provides the corresponding former claims or other support upon which the new claims are based. No new matter is introduced.

| New Claim | Support                 | New Claim | Support                 |
|-----------|-------------------------|-----------|-------------------------|
| 187       | cls. 1, 23              | 212       | cls. 6, 7, 17           |
| 188       | cls. 2, 24              | 213       | cls. 7, 8               |
| 189       | cls. 9, 20              | 214       | spec., p. 10, ll. 16-28 |
| 190       | cls. 10, 21             | 215       | cls. 3, 14, 29          |
| 191       | cls. 8, 19              | 216       | cls. 4, 15, 30          |
| 192       | cl. 135                 | 217       | cl. 11                  |
| 193       | cls. 5, 16              | 218       | cl. 12                  |
| 194       | cl. 136                 | 219       | cl. 133                 |
| 195       | cls. 6, 7, 17           | 220       | cl. 133                 |
| 196       | cls. 7, 18              | 221       | cl. 133                 |
| 197       | spec., p. 10, ll. 16-28 | 222       | cl. 133                 |
| 198       | cls. 3, 14, 29          | 223       | cl. 134                 |
| 199       | cls. 4, 15, 30          | 224       | cls. 1, 23              |
| 200       | cl. 11                  | 225       | cls. 2, 24              |
| 201       | cl. 12                  | 226       | cl. 25                  |
| 202       | cl. 133                 | 227       | cl. 26                  |
| 203       | cl. 134                 | 228       | cl. 27                  |
| 204       | cls. 1, 23              | 229       | cl. 28                  |
| 205       | cls. 2, 24              | 230       | spec., p. 10, ll. 16-28 |
| 206       | cls. 9, 20              | 231       | cls. 3, 14, 29          |
| 207       | cls. 10, 21             | 232       | cls. 4, 15, 30          |
| 208       | cls. 8, 19              | 233       | cl. 31                  |
| 209       | cl. 135                 | 234       | cl. 32                  |
| 210       | cls. 5, 16              | 235       | cl. 33                  |
| 211       | cl. 136                 | 236       | cl. 34                  |

Claims 12 and 37 also are properly part of Group I and should be examined together with these claims. These claims are dependent upon claims 11 and 36, respectively, and refer to an agent which the method further comprises using. These claims depend from claims 1 and 23 of Group I and read on methods using a compound comprising the sequence LKKTET or a conservative variant thereof. Claims 31-32 relate to compositions of Group I which further comprise a second agent. They also clearly read on Group I and should be examined with this group. Thus, claims 12, 31-32 and 37 are not directed to a species of a different agent but to a method of claim 1 or claim 23 which further comprises another agent. Applicant would like, however, to clarify that the restriction group being examined here includes any subject matter directed to methods as defined in Group I by the Office. Applicant therefore requests further examination include a consideration of all claims indicated in the amended claim set. Applicant reserves the right to further prosecute the canceled subject matter in a later divisional application.

Applicant has amended claim 136 to cancel language relating to lactated Ringer's intravenous polyalkylene glycol and has canceled claims 173-176. Applicant therefore submits that the application is entitled at least to the priority date of prior application PCT/US99/17282.

Claims 1-2, 5-8, 11, 23-28, 33-36, 38-39, 133-136, 173, 175 and 183-184 are rejected as indefinite for recitation of "hydrophobic amino and residue," an obvious typographical error. Applicant has corrected the language to read "hydrophobic amino acid residue," which mirrors the numerous other recitations of the phrase "amino acid residue" in the specification and claims. Applicant requests withdrawal of this rejection.

Claims 136 and 173-176 are rejected as lacking adequate written description. These claims are canceled herein. Applicant therefore requests withdrawal of this rejection.

Claims 1-3, 5-7, 11, 13-14, 16-18, 22-29, 33-36, 38-39, 53-55, 57-59, 61, 133-136, 173-176 and 183-186 are rejected as anticipated by Mann, U.S. Patent No. 6,030,948 (hereinafter "Mann"). This reference has been cited for teaching a method of

hair regeneration where a thymosin fraction 5 solution is applied to the scalp after an acid "peel" is first performed. The Office considers the removal of the acid peel solution to inherently result in "abrasion/damage/lesions/wounds." Applicant has previously explained why acid peels do not result in such damage or wounds to the skin, including a declaration under 37 C.F.R. § 1.132 from an expert in dermatology, filed September 17, 2008. Applicant submits that this is sufficient evidence to show that Mann does not teach applying thymosin fraction 5 to a wound because no wound is produced by an acid peel. Certainly a wound is not necessarily and inevitably produced by an acid peel and no wounding is even mentioned in the reference.

The Office has presented absolutely nothing to show (1) that Mann explicitly referred to wounds created during his hair restoration method, (2) that Mann's method would have been intended to produce wounds when the goal was to induce hair growth and not to damage the skin, (3) that Mann's method actually did or would have produced wounds, or (4) that a reasonable person of skill in the art would expect abrasion/damage or wounding of the skin either from the methods of Mann or from acid peels generally. Therefore, the Office has not met its initial burden to make out a prima facie case of anticipation, which requires a showing that the reference teaches all elements of the claims. Applicant reincorporates the declaration of Jo-David Fine here and requests that the Office interpret the teachings and fair suggestions of the Mann reference in view of what a skilled person would take away from the reference in the context of the art.

The Office has stated that "wound" is not defined in the specification, therefore this wound should be interpreted as one of skill in the art would understand it. The declarant, Jo-David Fine, is such a person of skill and has declared that the Mann methods do not produce a wound (using the word "wound" as one of skill would have used and understood it). The present claims relate to a method for promoting wound repair in a subject in need of such treatment. Subjects in need of wound repair have wounds. The subjects treated in Mann for baldness do not.

The reasons given by the Office for maintaining the view that Mann discloses wounding the scalp, beginning in the final paragraph of page 14 of the Office Action, will be considered in turn below.

The Office states that whether the acid peel of Mann is abrasive is not necessarily relevant to the rejection. Applicant thanks the Office for this clarification. The Office had rejected claims previously because Mann had taught a method wherein an acid peel caused "abrasion/damage/lesions/wounds" to the scalp before thymosin fraction 5 application. Since Mann does not teach a method that produces "abrasion/damage/lesions/wounds" to the scalp, Applicant was forced to address this misapprehension of the facts by the Office. Applicant again submits that the methods described in Mann do not cause "abrasion/damage/lesions/wounds" to the skin and in particular do not cause a wound. First, there is absolutely no evidence that Mann does teach a method of damaging or wounding skin. Second, there is a declaration of record in this case showing that Mann's methods do not wound the skin. Third, it would be counterproductive in a hair restoration method to damage or wound the skin by physically peeling away the scalp, for example, since this would not benefit the growth of hair but indeed might permanently prevent it.

The Office states that the anticipation rejection is "based on the active method steps not the intent," referring to Mann's acid peel. The Office's rejection appears to be based on the theory that an acid peel necessarily and inevitably results in a skin wound, i.e. a theory of inherency. When the intent or goal of a method is to not wound the skin, the person of skill understands and the reference should be interpreted with that in mind. The acid peel treatments of Mann do not produce a wound and are not intended to do so. Therefore, to maintain that the Mann acid peels necessarily and inevitably do produce a wound defies logic and the practice of the United States Patent and Trademark Office. This is especially true when Mann nowhere refers to or describes any wound to the skin and the Office has presented nothing more than an unsubstantiated opinion that the cosmetic treatment of an acid peel causes wounds. The claims here recite a method of promoting wound repair by administering a wound-

repairing effective amount of a composition comprising a polypeptide from a recited list to a subject in need of wound-repair treatment. The "active steps" taught by Mann are to exfoliate skin and apply a mixture that contains 0.1-10% of a thymic extract. Since there is no wound in Mann, this method cannot anticipate the claims.

The Office considers removal of dead skin layers to be consistent with a wound because the claims do not distinguish between dead and live skin. The definition the Office provides from an online dictionary is an external surface being torn, pierced, cut or otherwise broken. Mann applies an aqueous solution to the scalp and then removes the solution by an unspecified method. Traditionally, such solutions are rinsed away with water or gently wiped with a soft damp cloth. Removal of the solution does not include physically peeling away the skin or breaking the skin and is not taught to do so.

The action of the peel is to loosen and dissolve dead skin chemically and not to tear away anything. Thus, no skin (dead or alive) is torn, pierced, cut or otherwise broken. The Office has interpreted the word "peel" in "acid peel" literally and in a manner no skilled reader in this art would do. The epidermis is not actually physically peeled in an acid peel. The chemical treatment does not physically peel the skin. There is no tearing, no piercing and no cutting. The skin is not broken.

The Office also has misunderstood the term "broken" in the context of broken skin and has interpreted the term in the broadest possible manner rather than the broadest reasonable manner that a skilled artisan in this art would do. Furthermore, the terms "broken" and "peel" are not recited in the claims, so the Office's practice of interpreting claim terms in the broadest reasonable manner does not give the Office license to interpret the claims or the art inconsistently with how a skilled artisan would interpret it. Broken skin is skin that has an open defect that exposes internal structures or the bloodstream. Examples are oozing sores, cuts, piercings, deep burns and the like, i.e. wounds. There is nothing in Mann that even hints that the skin would be broken by the acid peel treatments, much less that it would necessarily do so, and the declaration already of record proves that these treatments would not do this. Removal of the outer dead layers by dissolving in a chemical treatment does not break the skin

as this term is used in the art, even if it is referred to as a "peel." The acid peel treatment merely encourages a loosening effect to encourage the natural process of exfoliation.

The Office has remarked that the claims recite a "genus" of wounds which is broad enough to justify interpreting this term "wound" to encompass removal of dead skin. Dead skin is removed with normal washing in soap and water – this does not result in a wound or broken skin of any kind as those terms are used and understood by persons of skill, although both chemical and physical forces are at work. Claims 133-134 and 185-186, referenced by the Office do not define "wound" as the Office implies. Claim 133 (new claim 202, e.g.) lists tissues where wounds can occur. It does not recite a genus of wounds. Claim 134 (new claim 203) lists a series of diseases and conditions under which wounds may occur. It also does not recite a genus of wounds. Furthermore, a list including "burn," "pressure ulcer," "skin lesion" and the like does not suggest that acid peel treatments (which do not produce a wound) should be encompassed by the term "wound." Claims 185 and 186 recite "tissue injury" and not "wound," and refer to conditions with which the tissue injury may be associated. These claims do not even relate to interpretation of the word "wound," and do not refer to "acid peel" treatments as a source of "tissue injury."

The Office mentioned that it has no facility to test the concentration of thymosin beta 4 in the thymosin fraction 5 in the tables in Mann. This is known in the art. One milligram of thymosin fraction 5 yields about 6-10  $\mu\text{g}$  thymosin beta 4. The tables in Mann indicate a topical composition containing 0.1 wgt% thymosin fraction 5. Since the amount applied to the scalp is not precisely given one cannot calculate exactly, however even if one assumes the very large amount of one hundred milligrams of composition is applied to a wound, this would administer 0.1 milligram thymosin fraction 5 or about 600-1000 nanograms thymosin beta 4. This amount is not sufficient to achieve the claims. Even 1 mL of composition would not be enough to provide biological activity.

The Office has noted that it considers tissue injury to encompass injuries accompanied by a skin wound due to the asserted recitations of former claims 185-186. As discussed above, these claims refer to conditions with which the tissue injury may be associated and do not define tissue injury. For purposes of the amended claims, however, Applicant would like to point out that the newly added claims do not recite the language "tissue injury." Therefore any rejection based on the Office's interpretation of this language is moot.

The Office twice refers to Applicant's purported position that acid peels "peel away skin," referring to page 26, line 22 of an unspecified document. Applicant's previous response, page 26, line 22 refers to acid peel treatments causing the outer dead layers to peel away and not to actively peeling them away. The term also is used in the manner one of skill in this art would understand it. An acid treatment encourages or speeds the natural exfoliation of skin and does not peel away the actual skin itself to cause a wound. As skilled persons know, the outer layers of skin "peel" away at all times and are replenished from below, as part of a natural process. Using the term "peel" in a literal and broad manner far beyond what a skilled person in the relevant art would understand, the Office has twisted Applicant's words and is not using the meaning that a skilled person would attribute to that word. It is normal for skin to exfoliate or "peel" away, and the acid peel treatments merely accelerate this process. The acid peel treatments of Mann do not break the skin or create a wound. They certainly do not remove the skin causing wounds as the Office insists, without evidence.

In response to the declaration filed September 17, 2008, the Office repeats that "wound" is not defined in the specification and therefore defines wounds as including "the many different wounds recited in claim 133." This claim (now claim 202, e.g.) does not recite a single example of a wound, but recites tissues in which a wound might occur.

The Office criticizes the declaration for failing to provide experimental or documentary evidence that the compositions of Mann, table 10 have certain properties. Until the Office has met its initial burden of showing that the acid treatments of Mann do



cause wounds in the skin, Applicant has no burden to refute this by proving a negative. So far, the Office has produced no evidence, other than its own unsupported conclusions, that Mann's baldness treatment wounds the scalp. The reference itself states that the acid peel system includes physiological acids and nowhere refers to any wounds. The Office appears to assume a wound is caused merely because the words "acid" and "peel" are used, without understanding how these words are used by persons of skill. The Office has not met its burden of making out a prima facie case of anticipation because it has not presented any teachings or suggestions from the reference itself or the art as a whole that Mann's methods result in treatment of a wound. Furthermore, the entirety of the evidence available indicates that this is not the case. Applicant requests that the Office put forth evidence showing that Mann's acid peel system wounds the skin, i.e. that the reference teaches every element of the claim, or withdraw the rejection. This is the Office's burden regardless of the lack of laboratory facilities at the Office. See M.P.E.P. §§ 2112 (III-V); 2112.02; 2131.

The Office has repeated again the comments concerning the definition of "wound" and referred to claim 53. This claim is no longer present in the application, therefore these remarks now are moot.

The Office then, on page 20 of the current Office Action, rejects Applicant's arguments that acid peels are mild because the rejection was based on "the active method." If the use of an acid peel does not create a wound, which it does not do, then the "active method" of Mann is to apply thymosin fraction 5 to unbroken skin and the claims are not anticipated. Therefore, whether the acid peel is mild or whether it creates a wound is relevant in this case because the Office has made it so by rejecting claims based on the assertion that Mann involves skin wounds. With respect to claim 53, the rejection is moot.

When making out a case of anticipation, the Office has the burden of showing that the cited reference teaches each element of the claim either expressly or inherently. The Office has not done so. The present claims require administering to a subject in need of wound repair treatment a composition which comprises a listed

polypeptide. The Office has only stated that acid peels produce a wound, without any support or evidence whatsoever, in the Mann reference or elsewhere, and demanded that Applicant prove the reverse. This is not proper according to the Office's stated practice. See M.P.E.P. §§ 2112; 2131. Applicant requests the Office review the Mann reference, the previously submitted remarks and evidence, including the amended claims, and then either withdraw the anticipation rejection or make an actual showing of prima facie anticipation, i.e. that performing the methods of Mann produce a wound in the subject prior to application of the baldness remedy.

Applicant requests withdrawal of the rejection of claims as anticipated by Mann.

Claims 1-3, 5-7, 11, 13-14, 16-18, 22-25, 27, 29, 33-36, 38-39, 53-55, 57-59, 61, 133-136, 173-176 and 183-186 are rejected as anticipated Turischev, Farmatsiya 45:42-43, 1996 (hereinafter "Turischev"). This reference is cited as teaching that thymosin fraction 5, administered intraperitoneally or topically produced a "clear acceleration" of healing rates and that 0.8 µg thymosin fraction 5 accelerated wound healing. Applicant traverses this rejection and this characterization of the fair teachings of this reference.

In Turischev, after wounding the skin of rats, the animals were treated with either intraperitoneal or topical thymosin fraction 5. The authors reported signs of accelerated healing in groups AI (0.2 µg/g i.p.) and AII (0.8 µg/g i.p.). Healing was slowed in group AIII (1.6 µg/g i.p.), which indicates the effects are not dose-responsive and hence unreliable. Healing slowed in the group reported which received topical administration. Therefore, a skilled person reading this article would likely ignore its teachings completely because not all the results from each group were even presented, because the results after i.p. administration were not consistent and because the results after topical administration were not the same. Mann, after all, recommends topical administration of its composition. No meaningful information can be extracted from this article. Certainly there is no "clear" teaching that the thymosin fraction 5 used in Turischev accelerates wound healing. Applicant submits that these results do not teach that thymosin fraction 5 accelerates wound healing.

The claims as amended are directed to a method for promoting wound repair and regeneration and not to wound healing. The Turischev reference does not teach any role in wound repair (in contrast to wound healing) for thymosin fraction 5 or any of its constituents, or show any of the recited activities from new claim 187. Therefore this reference does not anticipate the present claims.

Wound healing is defined as the closure of an open wound. Wound healing generally involves a linear wound that heals by contraction and growth of fibroblasts. This process is quick and does not require medical intervention in most cases. Often a scar is present if the wound is deep. With a scar, full function of the tissue is not restored and therefore the tissue is not repaired or fully functional. In wound repair (and/or regeneration), the tissue usually has a deep and wide wound that is repaired to full function by various cells including stem cells that regenerate the tissue, allowing for full function. An example of dermal healing would be a knife wound to the skin that heals but may leave a scar that does not allow for the elasticity of the skin. An example of dermal repair, would be a dog bite where a piece of the skin is removed and then the skin must repair and regenerate without a scar. Many such injuries are difficult to repair but will heal fine.

Turischev employed a thymic extract termed thymosin fraction 5, which contains tens of different active peptides, but it is not clear which of the different constituents in this thymosin fraction 5 could have been responsible for whatever activities were studied by Turischev. This thymosin fraction 5 composition is based on a 1972 method (Goldstein et al., PNAS 69(7):1800-1803, 1972) which was a precursor to the material now referred to as thymosin fraction 5 and is about 3 times more dilute than modern thymosin fraction 5. The slight amount of thymosin beta 4 which could have been present in the composition would not have been sufficient to produce the activities recited in the claims here. Therefore, Applicant submits that Turischev does not anticipate the claims under a theory of inherency and does not render the claims obvious.

No skilled person reading Turischev would be guided to use thymosin beta 4, which is not even mentioned in Turischev, to promote wound repair. First, there is no indication that whatever effects were shown were the result of thymosin beta 4. Thymosin fraction 5 is known to contain, among many other active peptides, thymosin alpha 1, which has wound healing properties. Therefore, the skilled person would have seen nothing to point in the specific direction of thymosin beta 4. Second, Turischev taught only that thymosin fraction 5 has some non-dose-responsive and vague activity that may accelerate wound healing but which slows it when applied topically as suggested by Mann. The specific activities discussed in Turischev were related to wound area contraction and specifically relate to eventual formation of a scar. Scar formation relates to wound healing rather than wound repair, as discussed above, and therefore would not suggest to or guide the skilled artisan to attempt using thymosin fraction 5, and certainly not thymosin beta 4 for wound repair.

The Office attempts to place the initial burden on Applicant to show a novel or nonobvious difference between the claimed product and the product of the prior art. Office Action, paragraph bridging pages 22-23. Applicant would like to point out that the claims under examination are not product claims but method claims, and that the Office has not met its initial burden to make out a prima facie case of anticipation (or obviousness) against the claims now pending. Applicant, however, urges the Office to consider the remarks above with respect to Turischev, and to withdraw this rejection.

Claims 1-3, 5-8, 11, 13-14, 16-19, 22-29, 33-36, 38-39, 53-55, 57-61, 133-136, 173-176 and 183-186 are rejected as obvious over Mann, discussed above and previously of record. Applicant maintains its position that the Office has not shown any evidence that Mann's methods produce a wound by acid peel treatment, that Mann's methods in fact do not produce a wound by acid peel treatment, and that Applicant's previously submitted evidence proves that Mann's methods do not produce a wound by acid peel treatment. Since Mann does not teach, or even suggest treating a wound with its hair restoration composition, it cannot render the claims here obvious.

The claims as amended are directed to a method for promoting wound repair and regeneration by administering the recited composition which contains TB4 or a TB4 isoform and has actin-sequestering or actin-binding activity, stimulates epithelial migration, stimulates wound healing and promotes wound repair. Mann does not teach, suggest or guide the reader toward any method for wound repair (there is no hint that Mann applies the composition to a wound at all for the reasons discussed above and there is no hint that the composition that he did apply to the scalp had or could have had any wound repair or even wound healing effects). Mann does not suggest that any of his compositions possessed any activity recited in the claims here and therefore provides no guidance in this direction. Mann only teaches hair restoration and not the production of, healing of or repair of wounds on the scalp. Applicant therefore requests consideration of the claims as amended in view of what a reasonable person of skill in the art would have ascertained from Mann, and withdrawal of the rejection. Mann does not teach or suggest all elements of the claims or suggest the hair restoration method should be modified specifically as claimed.

Claims 1-2, 5-8, 11, 13, 16-19, 23-28, 33-35, 38-39, 53-55, 57-61, 133-136, 173-176 and 183-186 are rejected as obvious over the combination of Malinda, Baumann and Biotech Patent News, previously of record and discussed at length. Malinda is cited for teachings related to endothelial cell chemoattractant, cell migration, wound closure speed and angiogenesis. The Office concedes that Malinda does not teach using TB4 for wound healing but presents arguments designed to persuade that it would have been obvious to try using TB4 for such a purpose. The factors mentioned are positive results in an in vitro wound "scratch" model, which in no way correlates with effects in vivo in wound healing, much less in wound repair, and the other effects mentioned above. The Malinda "wound closure" assays were done with endothelial cells to test their migratory activity. These cells do not heal a wound. In fact, Malinda shows that fibroblasts do not migrate in the Boyden chamber assay, so any skilled artisan noting from Malinda that endothelial cells but not fibroblasts migrate in response to TB4 would be discouraged from using TB4 for wound healing or wound repair in vivo.

Baumann is cited for teaching that in vitro "wound healing" is increased by TB4. Biotech Patent News is cited for its teaching that workers plan to investigate TB4 in a wound healing study. None of these teachings, alone or in combination with Malinda suggest to the skilled artisan that he should attempt the claimed method for promoting wound repair or regeneration or that thymosin beta 4 could reasonably be expected to possess the recited activities. The Office is straining to make out a case that one would have been motivated to try TB4 for wound healing, but cannot show a reasonable expectation of success for wound healing with this combination of art. There is no hint or guidance in the art toward wound repair or regeneration. Applicant therefore requests that the Office consider the amended claims and withdraw this rejection.

Claims 1-8, 11, 13-19, 22-30, 33-36, 38-39, 53-55, 57-61, 133-136, 173-176 and 183-186 are rejected as obvious over the combination of the three references cited above, with the addition of Puolakkainen, also of record. The Office Action states that Malinda, Baumann and Biotech News "obviate the use of TB4 for wound healing." Applicant does not understand this statement, since it appears to be an admission that the cited references rule out using TB4 for wound healing, and requests clarification. Nevertheless, because the claims now recite a method of wound repair and regeneration, the teachings with respect to wound healing are no longer relevant.

The content of the Malinda, Baumann and Biotech News references is discussed above. Puolakkainen is cited only for the additional teaching that TGF-beta enhances wound healing. This reference does not add anything to the combination discussed above in terms of a reasonable expectation of success for any wound healing application or in terms of the invention claimed here, which is a method of wound repair and regeneration. The references do not teach or fairly suggest a method of wound repair, the specific method of wound repair claimed here, or provide any reasonable chance of success for such a method.

In response to the comments in the Office Action, Applicant would like to point out that Baumann's in vitro results are not factual evidence of in vivo results and although the Office presumes the reference is enabling for what it teaches, Baumann

only teaches in vitro wound closure assays, not in vivo wound repair. The Biotech News abstract is not a peer-reviewed journal reporting actual experimental results but a news report. It therefore should not be presumed "enabling," if that term even makes sense for a news report. Even if it were enabling for what it teaches, it only teaches that some workers are planning a study, therefore it enables planning a study, not a method for promoting wound repair.

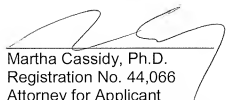
Applicant requests the Office withdraw this obviousness rejection.

The Office has maintained the provisional non-statutory double patenting rejections over certain claims of pending serial nos. 11/284,408, 11/917,869, 11/715,997 and 12/444,331. As discussed previously, Applicant requests that these provisional rejections be held in abeyance until such time as any claims are deemed allowable so that it can be determined whether the grant of this patent actually would result in double patenting. Further, the claims have been amended. Therefore, Applicant requests that the Office reconsider the rejections on grounds of double patenting in view of the amendments.

Applicant request reconsideration of the application and allowance of the claims presented here.

Respectfully submitted,

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